

Claims

1. Method for operating an antenna assembly (100) having a desired overall directional dependence, wherein the antenna assembly (100) comprises at least one first partial antenna (R1) and a second partial antenna (R1+R2), which are disposed relative to each other in such a manner that the individual directional dependences of the partial antennas at least partially overlap, and wherein the first partial antenna (R1) is associated with a first antenna signal which represents a radio signal for receiving or transmitting via the first partial antenna (R1), and the second partial antenna (R1+R2) is associated with a second antenna signal which represents the radio signal for receiving or transmitting via the second partial antenna, characterized by the following steps: cyclic alternating operation of the first and second partial antennas; and generation of a third antenna signal which represents the radio signal for receiving or transmitting through the antenna assembly (100) and with the desired overall directional dependence in the form of overlapping individual directional dependences of the partial antennas (R1, R1+R2), generated through mathematical linking of the first and second antenna signals.
2. Method according to claim 1, characterized in that the second partial antenna (R1+R2) can be generated from the first partial antenna (R1) by connecting at least one additional antenna element (110-1...-12) to the first partial antenna (R1).
3. Method according to any one of the preceding claims, characterized in that the frequency for switching over between the individual partial antennas (R1, R1+R2) is selected sufficiently large, and in accordance with the dynamics of the radio signal, such that each of

the partial antennas can equally receive similar parts of the radio signal.

4. Antenna assembly (100) having a desired overall directional dependence, comprising: at least one first (R1) and one second (R1+R2) partial antenna which are disposed relative to each other in such a manner that the individual directional dependences of the partial antennas at least partially overlap, wherein the first partial antenna (R1) is associated with a first antenna signal which represents a radio signal for receiving or transmitting via the first partial antenna, and the second partial antenna (R1+R2) is associated with a second antenna signal which represents the radio signal for receiving or transmitting via the second partial antenna, characterized by a control means (130a, 130b) for cyclic alternating operation of the first and the second partial antennas (R1, R1+R2), and an evaluation means (150) for generating a third antenna signal which represents the radio signal for receiving or transmitting through the antenna assembly (100) with the desired overall directional dependence in the form of overlapping individual directional dependences of the partial antennas (R1, R1+R2) and generated through mathematical linking the first and the second receiving signal.
5. Antenna assembly (100) according to claim 4, characterized in that the control means (130a, 130b) is designed to operate the second partial antenna (R1+R2) by operating the first partial antenna (R1) and, at the same time, operating at least one additional antenna element (110-7...-12).
6. Antenna assembly (100) according to claim 4 or 5, characterized in that the first partial antenna (R1) comprises a first plurality of

antenna elements (110-1...-6) which are preferably disposed in a row (R1).

7. Antenna assembly (100) according to claim 6, characterized in that, in addition to the first plurality of antenna elements (110-1...-6) disposed in the first row, the second partial antenna (R1+R2) comprises a second plurality of antenna elements (110-7...-12) which are disposed in a second row (R2), wherein the first and second rows (R1, R2) are preferably disposed parallel to each other.
8. Antenna assembly (100) according to claim 7, characterized in that the first and second rows (R1, R2) of antenna elements of the second partial antenna preferably have a mutual separation of $\lambda/2$.
9. Antenna assembly (100) according to any one of the claims 4 through 8, characterized in that the antenna assembly (100) is designed as a microstrip antenna.
10. Computer program with program code, in particular, for the evaluation means (150) of an antenna assembly (100), characterized in that the computer program is designed to perform the method according to any one of the claims 1 through 3.